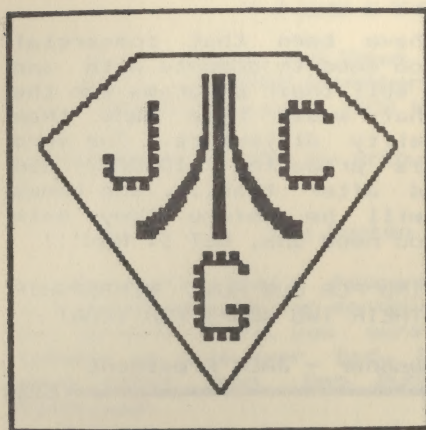




JACG 74CE

NEWSLETTER
Vol.3 No.9

May 1984
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THE JERSEY ATARI COMPUTER GROUP

★★★★★DISK LIBRARY LISTING/PART III★★★★★

From the Editor's Desk...

The trees are finally budding, the grass soon will need its first mowing, and the promise of gentle times are upon us. As the planting season approaches how about taking two hours of your time to put some seeds of your experience and knowledge down on paper for all of us to share? To truly belong to an organization like JACG means the responsibility of occasionally contributing.

This issue contains the comprehensive index for Volume 2 of the Newsletter. It was published from September 1982 through August 1983. As I went through each issue, compiling the data for this index, I wondered just how to set up categories which would be descriptive and meaningful. As I wrote down more and more data it became clear what great variety and depth of members we have. Articles covered almost anything. I found information which answered questions that had been bothering me. My task was trebled because I decided to "just scan" the article and had to stop and digest the whole thing. In short, the JACG Newsletter is so rich in material that anyone can find articles to capture the attention, to stimulate the imagination, to quench temporarily the thirst for knowledge.

The Index is on page 20. Peruse it. Look for your name. Count the number of times it appears. Unless your last name is Leyenberger or Kushner you should pause and pledge to find yourself listed in next year's compendium. We need articles in all the categories listed this year; software and hardware and printed material reviews, programs, construction, satire, and general. This volume will have to add categories of tutorial, columns, and artwork in order to be complete. Perhaps you will help us develop other categories through articles and material you will give to us.

You have to hurry. There are only three issues left before we begin Volume 4.

Frank Pazel
Editor-in-Chief, JACG Newsletter

MARK YOUR CALENDARS!! JACG Meeting Schedule

May 26, 1984 <--Chris Crawford Day
June 9, 1984 <--Jerry White Day

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AND NOW A WORD FROM THE PRESIDENT....

First some items of JACG business.... We have made the following purchases for JACG use: one 1200 baud Hayes Smartmodem for use by Scott Brause on our Bulletin Board. This should allow more users to get on the system. A big thanks to Scott for the terrific job he is doing getting the new BBS program up and running. We are also purchasing two more disk drives - one for use by Don Ursem for library duplication work and one for use by Rick Olson to help maintain the membership list. We will also be contributing at least \$100 to help get the national Atari convention (Taricon) off the ground. It will be held in Michigan during August. Depending on what I learn from the organizers of this affair, we may be contributing more. I think, and the membership agreed, that as one of the largest Atari groups we should support this effort.

We have also established two new policies: Beginning in June, all commercial dealers who sell items at meetings must advertize in our newsletter either the month before or the month after they want to sell items. We do not feel that this is any undo hardship on the dealers, since we provide a ready, eager clientele. This policy has no effect on members who want to sell used hardware or software at meetings. Beginning in July, purchasers of library disks will be required to present their membership cards. This is being instituted to promote membership as a means of obtaining the extra benefits that the library provides.

Several of our regular authors will probably comment along the lines of the following, but I strongly feel that I want to get on the record also. The presentation we had at the April meeting by Dan Buntin (author of M.U.L.E. and Seven Cities of Gold from Electronic Arts by way of Ozark Softscape) was probably the best I have seen at one of our meetings. Dan is clearly a gifted individual in more than just programming ability. His description of game design and his tour through Seven Cities of Gold was not only entertaining but also very educational. Dan told me that the feeling was mutual in that he was impressed by the questions and comments that came from the audience. I want to also thank Dan for donating an autographed copy of M.U.L.E. that we gave away in a drawing. As an aside, "Hello, Little Rock, Arkansas from the Jersey Atari Computer Group".

Among recent news items: Atari fired Chris Crawford (as probably everyone knows by now). However, this does not mean that Chris will miss our special May 26th meeting. He will be there as our featured speaker. Don't miss this one, folks!! Atari is quietly terminating APX since it was only marginally profitable. The

problem may have been that commercial software was too good to compete with and APX couldn't sell their programs for the \$15 or less that would have made them worth the quality difference. One more note...Atari is producing 15,000 850 interfaces and after that.... who knows how long it will be before they make anymore. If you need one, GET IT NOW!!!

I'M STILL WAITING FOR OUR HUGE MEMBERSHIP TO CONTRIBUTE THEIR TWO HOURS PER YEAR!

Richard Kushner - JACG President

JACG

GETTING DOWN TO BASICS by Richard Kushner-JACG

There will be no column this month. I have been too involved in getting the last details of publication out of the way, taking a vacation out West and enduring a miserable spring cold. I apologize to those of you who await this column with baited breath (well, at least one person told me they read the column!) Instead of a BASIC column this month, I'll take a moment to describe the trials and tribulations of getting Basic Atari BASIC to press at the Hayden Publishing Company. No, on second thought, that would fill this entire newsletter and probably bore everyone to death. Suffice it to say that the book, originally scheduled to appear on your local bookstore stands around the first of the year, will be there when you read this newsletter (or, at least, within a month of that time). The project has been alternately exciting, terrifying and frustrating. I hope that after all the effort I have put into it, you will take the time to look it over. I'm proud with how it came out, nervous about how it will be received and, ultimately, very pleased that I undertook the project in the first place.

Next month, we will take a look at the graphics chapter and then try to branch out into some entirely new areas in future columns.

JACG

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TIDBITS

News and Views By
Arthur Leyenberger
Editor-at-Large, JACG Newsletter

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Dan Bunten

Hey there! What's happening. The big news last month was at our monthly meeting. Yup, if you weren't there, you sure missed the best speaker we have ever had. I am talking about none other than Dan Bunten, from Ozark Softscape.

In case you have just returned from a Martian expedition, Dan, along with some other very talented guys, are responsible for two classic games for the Atari computer. M.U.L.E and Seven Cities of Gold. Both games are marketed by Electronic Arts which has a fine stable of other talented software artists, too.

Speaking of Electronic Arts, let me thank the one person that made Dan's visit possible: Terrylynn Pearson. Terry is the main public relations person at EA. Translated, that means she is the Director of Public Relations. She and Dan were in New York for a week long PR trip. Terry purposely scheduled her press tour to coincide with our meeting. I think that is pretty nice and I know we all appreciate her efforts.

But back to Dan. I had a chance to interview Dan Bunten over lunch after the meeting. Then after I drove him to the airport, we sipped a few for a while longer. Even though I have only talked to him for less than five hours, I get the feeling that he is an old friend. Dan definitely does not fit the programmer image. He does not talk in bits and bytes, does not carry a calculator on his belt and he doesn't wear a pocket protector.

But seriously, Dan is a interesting, sensitive person who is a pleasure to talk with. His interests range from social biology to science fiction. He is a philosophical person as evidenced by the nature of Seven Cities of Gold, his latest game. In this game, which is a simulation of a 15th century conquistador, there is no specific way to win the game. For example, you can trade with the natives of the new world or you can smash their heads in and take what you want from their village. The decision is yours as to how you will interact with other members of the human race. Also, as the ships captain, you are a manager of your crew, the provisions, the goods on board and the course you travel. You establish your own goals in Seven Cities based upon whatever is important to you.

To sum up, I enjoyed meeting Dan and I look forward to seeing him again. Dan Bunten is just a real nice guy from Arkansas. Thanks Dan for taking the time to visit the Jersey Atari Computer Group and allowing me the chance to meet you, albeit briefly.

Where's the Beef? Where's the Beef?

If you think Atari is just sitting on their...hands, think again. There has been a

flurry of activity out of Sunnyvale both in a positive and negative manner. It is almost like the good news/bad news joke: first the bad news. Atari has laid off additional employees including Chris Crawford. Still another bad decision in a long history of bad decisions you say? Could be. Atari (James Morgan) is still trying to get the company ship shape. You have got to give the guy credit not only for what he intends to do but to make decisions and stick with them. He has got a lot of business savvy which, to the layperson means, he has guts.

Now the "good" news. First, I do not have any privvy information so the following comments are what I have picked up here and there. If I did have privvy information (which I actually may have next month about this time) I would already have signed a non-disclosure agreement which would forbid me to talk about it. That comes down to if I knew, I couldn't tell you, but since I don't know, I can speculate.

There will be some new product introductions at the Consumer Electronics Show in Chicago in June. Rumor has it that the 1450XLD will be announced and that warehouses are already stocking up on them. The machine will supposedly have a true double-sided, double-density built-in disk drive and a 300/1200 baud modem. There is also supposed to be an enhanced (huh?) speech synthesizer that is better than the one shown a year ago.

Also to be announced soon, is the expansion box for the XL line of computers. 80-column (with a monitor) capability, serial and parallel interfaces and extra card slots for your enhancement pleasure. The SYN-series of software will definitely be out by June as will the Atari Light Pen. There may even be an announcement of the first of the AtariTel products.

Like I said at the beginning of this piece, none of this information is guaranteed to be true. And if and when I do learn of the new products that will be announced at CES before they are official, I will honor any commitments I have made to Atari not to disclose the information. I am planning to go to CES so there will be up to the minute coverage in the June issue of the JACG Newsletter.

That's it for this month. This is Art "Loose Lips Sink Ships" Leyenberger signing off.



"No thanks, Miss Lee. I'll wait for the electronic version."

San Leandro, CA Computer Club

Art's Arcade

By Arthur Leyenberger - JACG

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Welcome back to the arcade. This month we have four great games for your Atari. All of these games are real so get those quarters out and let's play some video games.

Oil's Well

It seems that it is a fact of life that a success breeds many imitators. This is true for the me-too television movie market where just about every theatre hit is followed by a suspiciously similar TV movie. And video games are no exception. Space Invaders started it all, Miner 2049er resulted in more than a half dozen clones and there were more Q-Bert spin-offs and rip-offs than I care to remember.

Pacman is another game that is much copied. There is only so much you can do with a maze theme and a gobbling character. At least that is what I thought until I saw Oil's Well from Sierra Vision. In this unusual maze game written by Thomas Mitchell, you have struck it rich with oil and must get it out of the ground. The other oil barons are jealous and would do just about anything to sabotage your operation. In fact, they have planted oozies and land mines in your oil fields in order to ruin your drilling equipment.

Imagine a pacman on a retractable line like a tape measure. As you move around the maze with your joystick you eat the dots. If you press the fire button the pacman instantly snaps back to the starting position. In Oil's Well, the dots are oil pellets, the pacman head is the drill bit and the monsters are land mines and oozies. The retractable line is really your pipeline which is destroyed if an oozy or land mine touches it.

There are eight oil fields to be mined. As each one is completed, construction workers are busy building a refinery at the top of the screen. Once all of the fields are cleared out your refinery is finished but this is no easy task. After several hours of play I have only made it to the fifth screen.

Oil's Well takes a refreshingly different approach to a maze game. The retractable drill bit is a novel idea that goes beyond a mere duplication of other games. This game will get a lot of air play around my house.

B.C. Quest for Tires

For some reason I no longer read the Sunday funnies and as a result I cannot name all of the latest strips. But one of the comic strips I remember is B.C. BC has been around a long time and is now available as an Atari computer game from Sierra On-Line.

Called B.C.'s Quest for Tires and written by Sydney, our familiar caveman friend Thor is

out to rescue Cute Chick from the clutches of a dinosaur. The only problem is that there are many obstacles in the way which must be overcome by various means.

The most frequently occurring obstacles are rocks and holes. If your timing is right, Thor can easily hop over these by pressing the joystick button. In addition, trees must be ducked under, rivers crossed and ravines leaped over. At the very end, Thor gets to meet the dinosaur. If he is successful, all that remains to saving Cute Chick is to get through the cave.

Throughout the game, Thor appears to be riding the stone-age equivalent of a unicycle. But the effect is lessened because the wheel does not turn. There is no doubt that this BC game is cute. But for me, that is simply not enough. I quit reading comic strips because they no longer interested me and this game has had the same effect. On the other hand, after giving this game a try, you might find that you like it after all. I still do not know what tires has to do with the title.

Zeppelin

There are shoot-'em-ups and there are shoot-'em-ups. I am always in the mood for a good one but with the quantity now available, I will not waste my time on something mediocre. I classify Zeppelin from Synapse software as a good one and have enjoyed playing it.

As with any game of this genre, your goal is to annihilate as much as you can in the shortest possible time. You are the pilot of a Zeppelin that must explore the 250 rooms of the cave world Zarkafir. There is dynamite located somewhere in each of the seven levels that you must use to blow up the world of the Timelords.

With automatic scrolling and interesting graphics, the game requires you to avoid such dangerous things as defending dirigibles, enemy barriers and deadly air currents. Other special objects are also provided. Switches turn the enemy defenses on and off, keys will unlock certain parts of the caverns and there is even a hamburger creature that can be bribed into leaving their posts by feeding them a hamburger.

The various corridors are treacherous and require skillful navigating. Just to make the game more challenging, earthquakes (Zarkafirquakes?) occasionally happen. This makes it even more difficult to avoid the cavern walls. The joystick controls direction of movement and firing.

I cannot think of any company that has more good game titles than Synapse software. A recent addition to their catalog, William Mataga's Zeppelin is a quality shoot-'em-up that will satisfy both the hard core gamer and casual player.

GIVE A BIT!!!

GIVE A BIT!!!

GIVE A BIT!!!

Star Trek

Once upon a time there was a man named Gene Roddenberry. Fifteen years ago, he created what we now call the Star Trek phenomenon. I admit that I am totally immersed in the world of Star Trek. I never miss an opportunity to see a television episode, I have seen both movies more times than I can remember and I am reasonably literate in Trekkie Trivia.

You can understand my excitement then when I first learned that there was a Star Trek game for the Atari computer. Called the Strategic Operations Simulator, this "official arcade version" comes from Sega and is now available. Unfortunately, the game play is more similar to VCS action than what I had hoped for from my computer.

As a potential captain of the USS Enterprise, you are on a training mission and must save the Federation from Nomad, their most powerful enemy. During your mission you encounter such alien enemies as Klingons and anti-matter saucers. If damage control reports phasers, warp drive or photon torpedoes inoperative, you must dock with Federation Starbases for repair. Asteroid fields and meteor showers must also be endured before your final showdown with Nomad.

The screen is divided into three sections. Each one provides information necessary for your mission. To the left are your gauges. This contains your score and monitors the Enterprises defenses and weapons such as energy shields, warp drive, photon torpedoes and phasers. To the right of the screen is the radar scanner. An overhead view of the battle area is provided which shows the relative position of the Enterprise, Starbases and enemies. At the bottom of the screen is the viewer. This is supposed to be a 3D view of enemy and obstacles but the block graphics lessen the realism.

The most interesting aspect of this game is the user interface. A joystick is used for game play but there are a lot of controls at your command. Pushing the joystick forward gives thrust while left and right provide left and right rotation. To get thrust and rotation, the two forward diagonal directions are used. Pulling back fires a photon torpedo. The button fires phasers and if pressed while pulling back on the stick, engages warp drive. It all sounds confusing but to Sega's credit, it all works remarkably well.

As mentioned before, I am rather dissatisfied with Star Trek from Sega. I was hoping for a lot more. However, the game is still fun to play, especially if your imagination can overcome the limited graphics.

Berzerk

Although Berzerk has been in the arcades for a couple of years, there has not been an

official home computer version of the game. Atari has changed that sorry situation with the release of Berzerk, an arcade clone that captures the vital essence of the original arcade version.

You are a humanoid trapped in an electrified maze. Wherever you turn there are alien robots firing lasers at you. Fortunately you have a laser capable of destroying the robots but can you withstand the intense pressure?

Atari has packed a lot of game into this 16K cartridge. Occasionally you hear "intruder alert, intruder alert" in a subhuman voice. If you decide to run and exit the maze before you have destroyed all of the robots you hear "chicken! Fight like a robot". The built in voice really adds to the playability of the game.

The goal is to destroy as many robots as possible and advance to the highest level maze. You start with three lives but win more as you earn points. The electrified walls are deadly and so is the radioactive debris of an exploding robot. The best strategy is to lure the robots into walking into walls and shooting each other.

You score 50 points for each dead robot and bonus points for clearing the entire maze of them. But do not linger too long in one spot. These robots have sophisticated scanning capabilities and can triangulate on you in a couple of seconds.

There is one other deadly hazard in this game: Evil Otto. Evil Otto inevitably comes bounding across the screen, crushing everything in his path. His maniacal Happy Face is enough to turn your blood cold from fright. If Otto makes the scene, the only choice is to get the hell out of there fast. If you are able to make it, you will find yourself in a new maze with even deadlier robot opponents.

Like the arcade version of the game, Berzerk is easy to learn but difficult to master. However you will improve with experience. Berzerk is the kind of fast-paced, gut-level game where the strategy is, if it moves, shoot it.

I love these kind of games and Berzerk is right at the top of my list of games that allow me to reduce my frustration level. Let me at 'em!



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FLEA MARKET RULES

In order to clarify the intention of the Executive Committee in sanctioning the use of the BTL lobby before and after monthly meetings for use as a member flea market we publish the following rules:

1. All flea market sellers must be current JACG members.
2. Space is provided on a first-come, first-served basis.
3. Only ORIGINAL programs with ORIGINAL documentation may be sold in the area of software.
4. Hardware of any type may be sold normally without constraint. The Executive Committee reserves the right, however, to limit the physical size and space consumed by such hardware.
5. Flea market business will be conducted only in the lobby and ONLY when the meeting is not in session in the auditorium.
6. The Executive Committee reserves the right to deny or suspend the privilege of flea market usage to any person, member or not, for infraction of these operating rules.

Rules For Merchant Sales at JACG Meetings

Commercial Sellers Must Advertise

The JACG Executive Committee has adopted the following policy concerning commercial sales at any JACG official meeting. The effective date of implementation will be with the July 14th, 1984 meeting.

1. Any merchant selling or renting products, selling services, or in any way promoting same at JACG club meetings must have an advertisement in the current or previous month's issue of the JACG Newsletter, 1/4 page minimum.

2. The number of merchants shall be restricted to three per meeting unless special permission is granted by the President. Preference will be given to current advertisers.

3. Each merchant will occupy no more than one table space or its equivalent. The JACG does not guarantee availability of tables.

4. Merchants are responsible for the return of all furniture they use to its original location and to leave their area neat and clean before leaving.

5. Merchants will check with the Advertising Manager for permission to set up prior to the meeting to have their qualification confirmed.

6. Merchants may not sell during the official meeting and must cease sales and clean up within 15 minutes after the end of the official meeting.

7. Any merchant violating these rules will be not allowed to operate at JACG functions until compliance is assured through the JACG Executive Committee.

8. A merchant is any person, or group of persons, who operate as a regular full or part-time business for the purpose of profit.

The purpose of these operating rules is to insure non-violation of the Bell Laboratories use agreement which, if violated, could jeopardize JACG's use of the facilities. We appreciate your full cooperation in this matter. These rules do not apply to regular members selling their own second hand hardware or original software as outlined in the Flea Market Rules.

GIVE A BIT!!!

Contribute to the Newsletter this month.

Meet Jerry White

Atari's Mr. BASIC

by Frank Pazel - JACG

It is nearly impossible to pick up any journal containing material for the Atari computing system which somewhere does not mention the name of Jerry White. He either is being quoted, praised, or more likely, the author of the piece you are reading. Mr. White has to be one of the most prolific writers of articles and programs for the Atari computer. His credits now includes The Atari User's Encyclopedia, a reference destined to become a standard on every Atarian's bookshelf.

The list of commercial software credited to Jerry White literally fills a single page. At this writing they number twenty-five and many are available for both the Atari and the (horrors!) Commodore 64. Perhaps first famous for his many utility programs Jerry expanded his horizons by turning to the challenge of business, game, and educational software. That his efforts were successful is reflected in the list of manufacturers who wisely elected to publish his works. They include Adventure International, Artworx, Atari Program Exchange, C.E. Software, Dyancomp, Educational Software, MMG Micro Software, Program Design Incorporated, Quality Software, Swiftly, and Tronix.

The thirty-seven year old White began his computing career at age eighteen as a computer operator trainee. Working mostly with business systems which had "too many problems" he quickly learned to program on the fly. In his spare time he got into utility type programs which would make his job easier during the day; things like tape library control and forms usage. This basic training would lead to a wealth of business and utility programs early in his gone-public career.

His evenings found him banging out programs on a TRS-80 but he felt very constrained by the sound and graphics limitations of the machine. When the Atari 800 made its debut he knew it was the beginning of a long time love affair. Having a background in piano it was inevitable that his mind would turn to creating great and seemingly impossible sounds from the Atari. His Player Piano, Music Box, Tricky Tutorial#5-Sound, and Music Lessons, are some of the by-products of this interest. The music for My First Alphabet added greatly to its impact and winning of Atari's First Star Award. It also spawned a friendship which has led to Jerry joining Fernando Herrera at First Star Software since the first of this year.

His interest in the sounds capability of our favorite machine generated delights like Talking Poker, S.A.M., Talking Chatterbee, and numerous magazine articles. The idea of using distortion 12 in the sound statement to give us a robust bass sound demonstrated in his Theme From Barney Miller has opened up the spectrum of usable frequencies available to all of us.



One of his lesser known efforts is the marriage of the disk drive with the cassette player in a children's educational program, Robin's Halloween. Unlike earlier attempts such as Moonbase I/O, and Sammy the Sea Serpent, RH successfully merges the potential of computer+cassette sounds to produce a delightfully entertaining learning experience for little folks just learning to read. Actually a two part program, RH first tells an interactive story. Using a joystick the youngster has to help Robin enter a spooky castle on All Soul's Eve to regain a power crystal stolen by an evil bat. The crystal powers a flying saucer of a friendly alien who can not leave earth until the crystal is recovered. The story progresses only when the correct word is selected from a choice of three. The pictures and animation are great and the little ones really get into helping Robin help the space visitor.

Part two of the program, Robin and the Missing Letters, has the child fill in letters that are missing from a series of words. The words can come from a file on the disk or you can create a custom file of your own. Kids really like to help Robin solve the word problems. If you have a youngster just beginning to put words together this program is a fun way to encourage learning. It is available from PDI (see the listing of programs following this article).

As if these credentials weren't enough the energy of Jerry White is channeled into regular contributions to magazines like Antic, Compute!, ANALOG, and many others. He is the founding President of the Professional Atari Programmer's Information Exchange. He is available on CompuServe's AtariSIG as 71415,1420.

Those of you wise enough to have bought some of Jerry White's programs know that they are people-sensitive. He always fills his screens with prompts so the user never feels lost. The programs are logical, bug-free, and very good. He feels strongly that BASIC is too often demeaned and has proven himself the champion of the language. If it can be done in BASIC Jerry White will do it.

Reserve June 9th on your calendar. Come to the JACG meeting and meet first hand one of the benchmark programmers of our time, Mr. Jerry White.

Home Computer Products By Jerry White

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Poker Tourney

Artworx

Player Piano

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Atari Program Exchange

The Atari User's Encyclopedia

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Dynacomp Incorporated

Tricky Tutorial #6 Sound & Music

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General Ledger

Accounts Payable

Trivia Trek

Fileit 2+

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MMG Micro Software

Game Machine

Robin's Halloween

Program Design Inc.

Name That Song

Quality Software

Talking Poker S.A.M.

Talking Chatterbee

Tronix

"AT LONG LAST! SOMEONE WHO CAN
TRANSLATE MACHINE CODE INTO BASIC!"



TARICON 1984

by Richard Kushner-JACG

According to Ike Hudson of the CHAOS Atari Group (Lansing, MI) there will indeed be a TARICON (national Atari Convention) this year in Michigan. His group is handling the organization of all the User Groups and the MACE group (Detroit) is handling the building arrangements and the contacts with vendors. Ike has had a number of responses from his initial mailing to User Groups stating that they will certainly back the convention with their names, but JACG's decision to be an underwriter was the first one he has gotten from any of the major groups. PRETTY POOR SHOW, if you ask me!!! I hereby call on all the larger Atari groups to back TARICON with \$\$\$ and all the other support they can muster. We stand to gain a lot by having this affair come off successfully. This is NOT a Michigan convention; they are just serving as the hosts and hope that in future years the convention will be held in other places. Yes, there is the cloud of last year's unsuccessful effort, when MACE bit off more than they could swallow. Hopefully, all concerned have learned from that experience and can present this years effort on a more appropriate scale.

What can all of us do to help me e things along? That's an easy one to answer. Telephone.... call Atari on their 800 number and demand that they provide financial and personal support for TARICON. Call any national vendors and ask them if they plan on exhibiting at TARICON, and, if the answer is no, ask them why not!! Put some pressure on... we are the Atari community and it is only through ALL of our efforts that this exciting venture can take place.

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GIVE A BIT!!!

GIVE A BIT!!!

GIVE A BIT!!!

WORLD'S SMALLEST PROGRAMMABLE COMPUTER

by Donald Forbes - JACG

The world's smallest programmable computer is sitting on my Atari at this moment.

Any computer, or any cybernetic system for that matter, consists, as you know, of facilities for (1) input, (2) output and (3) processing. Input can be anything such as a joystick or paddle or our trusty keyboard. Output can be the screen or printer or even the sound on your TV. The processing part is made up of a control unit (central processing unit or CPU, and an arithmetic and logical unit or ALU) as well as memory (either read-only memory ROM chips or random-access memory RAM chips, or so-called "virtual storage" memory out on disk or even your cassette).

Scr # 1

```

0  +-----+ +-----+ +-----+
1  !terminal!->! B !->!terminal!
2  ! input ! ! ! ! print !
3  +-----+ +-----+ +-----+
4
5      ! ^ \
6      V ! \
7  +---+ +---+ +---+
8  ! S !<-! A !<-! Z !
9  ! ! ! ! ! ! !
10 +---+ +---+ +---+
11      ! ^
12      V !
13 +-----+
14 ! memory !
15 +-----+

```

My input (from the keyboard) and my output (to the screen) is handled by a register, called the B register, which either accepts an Atari floating point number or will output it to the screen.

My central processing unit is made up of three registers, which also take floating point numbers. The A register (or accumulator) holds the results of all arithmetic operations, and I can store and read numbers from it. The A register is supported by two registers that I cannot touch. The Z register lets me swap numbers between the B input/output register and the A arithmetic register. The S register merely sets a true flag (a number 1) or a false flag (a number 2) that I can use for a conditional branch in my program.

Memory consists of 200 floating point numbers, of which the first ten can be used for data storage, and the rest for program storage.

And there you have my world's smallest programmable computer.

How does it work? It has a set of 14 machine instructions or operation codes. Three input-output opcodes let you either input to register B (INP), output from register B to screen (PRB) or dump all registers and memory to screen (DMP). The EXE or exchange opcode swaps registers A and B.

Four of the instructions let you do addition, subtraction, multiplication or division. For example, the operation MUL xx (where xx is any number) with opcode 19 xx lets you multiply the contents of register A

by the contents of memory location xx. One opcode clears memory or the A or B registers. Another opcode stores the accumulator in memory. I can do an unconditional jump. Alternatively, I can test or compare values in the accumulator or memory location xx to set the true-false flag in register S and then do a conditional jump. The final halt (HLT) instruction stops processing.

That is the complete instruction set. Five of the opcodes have no operands (INP, PRB, EXE, HLT and DMP). The others require you to specify either a register or a memory location.

Notice that all the input and output data is in floating point decimal format. The opcodes are in two-digit decimal form. There is no fixed point arithmetic. There are no binary, octal or hexadecimal systems.

What we have here is the simplest possible digital computer with its own assembly language. We can now master computer architecture and assembly language with emphasis on programming procedures and information flow. All the frustrating complexities which hound and bedevil the beginning student of computer science and assembly language have been stripped away.

The computer I have described here is actually a BASIC computer program written by engineering professor Robert Pickett of Charlottesville VA that appeared in the July 1980 issue of BYTE. (I have a copy and will be glad to show it to you.) The article includes a program to compute the sum of two squares, and of the area under a curve. (Here are three fixes to the original article: statement 130 should be 105 DIM M(200),TIM(1) ; statements 640 and 1350 should read: FOR X=0 to 200: M(X)=0:NEXT X).

Bob Pickett tells us what his computer does, but does not tell us how. For that information we have to go back to the "little man theory of computers."

The computer is a clerk who sits at a large desk. On the left is an IN basket, on the right an OUT basket. There is a phone that rings occasionally (when it rings he drops what he is doing to answer the phone--this is called an interruption or "interrupt" for short). He has two scratch pads called "accumulator" and "instruction register" to record temporary information. He has a meat market (who is next?) counter with a button to increase the displayed number by one, and a dial to display any number he chooses. This gadget is called the "program counter" or "PC".

The clerk also has a large sheet of paper labelled "memory" that he uses to remember information. The sheet is marked in square cells all numbered consecutively. The number is called the "address", just like the number on the outside of your mailbox is called the "address" and has nothing to do with the contents of the inside of your mailbox.

What does the clerk do all day long? He follows the steps on the big sign on the wall in front of him:

1. FETCH NEXT INSTRUCTION
2. INCREMENT PROGRAM COUNTER
3. CARRY OUT INSTRUCTION
4. GO BACK TO STEP 1

He looks at the number in the program counter. He "fetches" or reads the opcode at that address and copies it into his "instruction register" scratch pad.

He then pushes the button that adds one to the program counter. He does it now, to make sure that he does not forget.

He executes the instruction--in our case, one of the 14 opcodes. A conditional branch, for example, would require him to reset the program counter to something other than the next sequential instruction.

He looks up at the wall and carries out step 4: "Go back to step 1".

This is the basic cycle of the clerk (again, and again, and again) and of every computer--known as the "fetch-execute" cycle. You can find all the details in Caxton Foster's book "Programming a Microcomputer: 6502". The computer loves it, but it would drive me crazy. I know. I once spent three weeks wrapping apples and placing them in boxes in a fruit-packing plant--four apples in the first row, five in the next row, four in the next row, five in the next row--until I was counting apples in my sleep.

Wouldn't it be lovely to just watch the clerk for a while? Jim Wieder and Scott Steketee thought so too, and are marketing their view (for about \$30) as Simulated Computer II--see March BYTE and April ANALOG.

Wieder's computer is similar to Pickett's, except that he displays the all the wires that connect all the registers. In fact, the system bus is the star of the show--you can hear and watch the glowing white electron whizzing along the bus to light up the next register (all the registers are visible at once) at the rate of about five seconds per instruction (or single step if you want).

The great contribution of John von Neumann to modern computers was the insight that data and instructions are indistinguishable until they reach the central processor. A program could change itself as well as the data. People who only program in high-level languages don't know this. Here is their chance to find out for themselves.

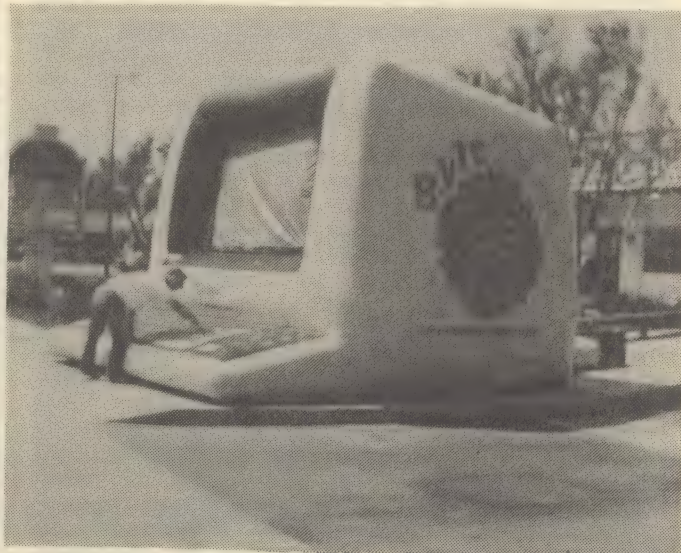
This computer has only 11 opcodes. However, you can generate a sound by storing a number in location 20. Furthermore, you can even do turtle graphics. A number in location 21 defines the turtle's color. Location 22 specifies the clockwise rotation angle in degrees. Location 23 sets the distance, starts the turtle off, and switches to a turtle screen. If you send him to the wall he (and the program) stops with a painful crashing sound! The documentation, as a bonus, contains several problems with their solutions.

What does this have to do with FORTH? Actually, everything. I wish I could afford to spend my time and your time just to provide you with an entertainment, but life is too short and the technology is rushing ahead too fast. Wieder and Steketee's program is written in compiled Forth and thus serves as a beautiful demonstration of Forth's versatility and execution speed. But

most importantly, Forth is a "working assembler language" which a programmer uses to get the utmost performance from his computer. The only goal here has been to help make me (and you, if you care) into a confident and masterful Forth programmer.

JRCS

Atari's New X-tra Biggie?



Is this the latest addition to the Atari line of computers? Is this the answer to those critics who say the Atari is nice but really needs a bigger memory? Is this the response to those of you who can't touch type and want a more reasonable way to accurately find each key?

Actually this is your Newsletter Editor in Sunnyvale, CA last summer at the opening of a new Byte Shop, a chain of software stores in the southwest. It would make a great party favor, don't you think?

JRCS

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TEKTRONIX TERMINAL EMULATOR

Bob Reeves
JACG

Before you sit down and type this program in, beware! It will probably be of little use to most Atari users. However, our newsletter editor says "Give me articles, give me articles. I don't care what they're about, just give me articles!". So being the enthusiast that I am, and feeling some responsibility to support our great newsletter, here it is.

I bought my Atari originally, as I suspect many of us did, to learn about computers and to give my kid a little head start, and, maybe, just a little, because I was about blown away by a store demonstration of Star Raiders.

After about a year of nighty typing, debugging, buying a disk drive or two, a printer, a modem, etc. etc., I began to experiment with some dusty old computers at work, and, just like the magazines say, found that computers might actually have some practical applications. I wrote some programs for HP lab computers and began to acquire and plot experimental data in days that had previously taken me weeks.

I have always been impressed by computer graphics (obvious by my personal choice in a home computer), and soon became a frequent user of TELEGRAF, a mainframe graphics program which runs on IBM, VAX, etc., and produces publication quality plots with a minimum of programming ability (I think the buzz-word is User-Friendly). TELEGRAF has a long list of output devices, like Tektronix graphics terminals, HP plotters, IBM graphics terminals, etc., none of which comes in at less than about \$5000.

About this time, I came across an article in Byte magazine entitled Mainframe Graphics on a Microcomputer, written by Mahlon Kelly. Hmm, just what I had in mind! The article described a program written for an LNWS0 computer that enabled it to display graphics that were intended for a Tektronix 4010 graphics terminal. I spent several evenings translating this program for the Atari, and then several weeks speeding it up. My 'final' version is an upgrade of this one, with a title screen drawn with Micropainter, and runs at about the speed of HP terminals configured to emulate the Tektronix, thanks to the Basic Compiler, by Datasoft, which I highly recommend to anyone who would like to speed up their basic programs without learning assembly language.

To use this program, it is necessary to first, using a terminal emulator (I used The Smart Terminal), tell the mainframe that you are a Tektronix terminal, and then save the resulting 'garbage' out to disk or tape (believe me, it looks like garbage). This program will take the resulting code and convert it into Atari graphics, with some sacrifice in resolution (the Tektronix resolution is 1024x780 vs 320x192 for the

Atari). For most plots I have worked with, the Atari resolution is adequate for a preview, and perfectly acceptable for viewing data trends. The original basic version printed here is quite slow, but still gets the job done. I use the compiled version on a regular basis, and it really moves.

If anyone else in our group has a need for this application, please feel free to contact me for any assistance. I hope someday to incorporate this program into a terminal emulator that can plot the data real time, while on line, rather than saving and then decoding later, and would appreciate any assistance that many of our more proficient programmers might offer.

Many thanks to Dr. Kelly for spending the hours and hours required to take apart the Tektronix code that produces the graphics and provide the equations for conversion to a Micro.

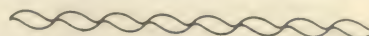
Move over IBM, Tektronix, and Hewlett Packard, ATARI is here!!!

```
10 TEKTRONIX 4010 EMULATOR FOR THE ATARI
20 REM CONVERTED FOR THE ATARI FROM
   MAINFRAME GRAPHICS ON A MICROCOMPUTER BY
   MAHLON KELLY, BYTE MAGAZINE, OCT 83
30 DIM T$(1),F$(120),FLAG$(2)
40 OLD=0 : HX=0 : HY=0 : LX=0 : LY=0 : CH=0
   : FLAG$="T" : M=319/1024 : N=191/780 : TRAP
   260
50 ? "WHAT IS THE INPUT FILE NAME" : ?
   "(DEVICE : FILENAME.EXT)"; : INPUT F$ :
   OPEN #1,4,0,F$ : P=PEEK(559) : POKE 559,0
60 OLD=CH : GET #1,CH
70 IF CH=29 THEN FLAG$="B"
80 IF CH=12 AND OLD=27 THEN F=1
90 IF F=1 AND CH>22 THEN POKE 559,P :
   GRAPHICS 24 : SETCOLOR 2,0,15 : SETCOLOR
   4,0,15 : SETCOLOR 1,0,0 : COLOR 1 : F=0
100 IF CH=31 THEN FLAG$="T"
110 IF CH<32 THEN 140
120 IF FLAG$="T" THEN 140
130 GOSUB 150
140 GOTO 60
150 IF CH>31 AND CH<64 AND OLD>95 AND
   OLD<128 THEN HX=CH : OLD=CH : RETURN
160 IF CH>31 AND CH<64 THEN HY=CH : OLD=CH
   : RETURN
170 IF CH>95 AND CH<128 THEN LY=CH : OLD=CH
   : RETURN
180 IF CH>63 AND CH<96 THEN LX=CH : OLD=CH
   : GOSUB 200 : RETURN
190 REM CONVERT TO X & Y COORDINATES
200 X=M*((HX-32)*32+LX-64)
210 Y=191-(N*((HY-32)*32+LY-96))
220 IF FLAG$="B" THEN PLOT X,Y
230 IF FLAG$="A" THEN DRAWTO X,Y
240 FLAG$="A"
250 RETURN
260 CLOSE #1
270 GOTO 270
```

ALICE

GIVE A BIT!!!

Contribute to the Newsletter this month.



R.A.N.D.O.M. N.U.M.B.E.R.S

by

Hank Hirschfeld - JACG
Q011767-1344

Well here I am again. Sorry I did not get into the last issue but then again that's the title of these articles. All kidding aside, it was a guilt trip with all the effort that Frank is putting into this newsletter. I hope the guilt will rub off on you who only read and don't contribute!

COMMODORE 1702 MODIFICATION

One of the things I found annoying with the monitor was that when changing from the rear input signal to the front composite signal I would have to readjust the BRIGHT control. This seems to be caused by a variation in the two video levels. I purchased a male and female RCA jack set (Radio Shack 274-334) and inserted in series a 200 ohm, 1/4 watt carbon resistor between the two center connectors and also tied the outer shields together. This adapter was inserted into the LUMA jack of the monitor and the cable that usually went to LUMA was plugged into the other end of the adapter. The value of the resistor may vary from monitor to monitor since I have only tried it on my unit.

CASE FOR APE-FACE

I recently purchased this printer interface as a gift for someone and could not let it go. I have two printers and was able to rationalize my needing to keep it. The unit is a small black plastic box with flat ribbon cable with Centronics type connector on one end and a cable with the 13 pin serial port connector on the other end. The unit operates off of the serial 5 volt line so you do not require another power supply. This connection is made when you connect to your system. The length of the cables attached to the APE-FACE allow you to place the printer at least 30 inches away from the last Daisy chained device. This unit does not have the additional serial port so it would have to be at the end of the daisy string. Now the way to rationalize the purchase price of approximately \$70 is to consider that a printer interface cable sells for about \$30 and for another \$40 you have the interface. If you have the Atari 850 you can use the standard printer port for one printer and a serial port for the other printer. Remember, you may only drive one printer at a time! Some printers will not allow you to have both connected at the same time due to a control signal present while the 5 volts is applied to the APE-FACE. In this case open the connector at the serial end and insert a small SPST micro switch in series with the 5 volt line to disable the APE-FACE. To find the five volt line look at the mating end of the connector on the cable with the row of six pins above

the row of seven pins. The 5 volt line is located at the pin second from the right in the top row (six pin row). You can also just unplug the cable from the 850 as required. The switch I used was a Radio Shack Minimicro 275-624 which was installed on the connector where the two sides meet after cutting a semicircle into each half.

TWO EXCELLENT BOOKS

Two books from Reston Publishing of Prentice-Hall. "Designs From Your Mind With Atari Graphics" by Tom Rowley and "Adventures With The Atari" by Jack B. Hardy. Both books have very good tutorials, programs, and extensive explanations of the lines in the programs. If you're thinking about writing a book this is the way to make a presentation. Next time you get a chance take a peek. You might poke into your wallet. The byte is about \$15 each (decimal not hex).

P*E*R*F*E*C*T*I*N*G DATA PERFECT

Nothing new this month (I'm perfect, right!) but next month we will go over doing a merge after changing a file. The manual is scary, to say the least, but it's not that bad.

DATA



MAY FLOWER

Logo Art by
Frank Pazel/JACG

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THE INSIDE VIEW OF FORTH
by Donald Forbes - JACG

For the public domain Forth on your micro you have to thank William F. Ragsdale, president of the Forth Interest Group since its inception and author of the bible, the FIG installation manual. He was interviewed at his Hayward CA office for the March issue of Forth Dimensions. Here are the highlights.

* * *

I was doing a lecture at a computer club on high-level languages and structured programming about 1977 or '78. I used Forth as my illustration. I had just gotten a very minimal level of Forth running at work and was kind of proud of that.

Someone there suggested that I give a short talk at the Homebrew Computer Club. After that talk we went and sat under an oak tree. There was Kim Harris, Dave Kilbridge, John James and Dave Boulton. They were the founders of FIG at that time.

I remember it was Super Bowl Sunday, 1978, when FIG was founded in an apartment in Sunnyvale. At that point we vowed to write a newsletter. My wife Anne and I took over the printing, publication and mailing of Forth Dimensions.

The West Coast Computer Faire came along about three months later. We got about two hundred people from the computer fair to join or subscribe.

We announced one Saturday, "Let's have a class on Forth." About thirty people showed up. How many people have a running Forth system? Out of thirty, I think only three raised their hands. I was dismayed.

A short time thereafter the first microcomputer implementation of Forth was made available for the Pet computer. Forth Dimensions immediately started getting letters telling us how terrible the product was and how people hated it. That put us in the worried mode. We had contact, by that time, with Elizabeth Rather from FORTH, Inc. Would they support personal computers? She very clearly stated, "absolutely not"...they would not support personal computer versions. They sold systems costing \$2000 - \$10,000 to scientific and industrial areas. (They did come out almost five years later with a version for the IBM-PC. But they have not supported any other personal computers with a commercial product.) We were absolutely up a creek, because there were going to be no commercial sources of the language.

My opinion at that time was to release my Dorado Systems Forth version 3.6 into the public domain, and that became the foundation for the FIG model.

We needed multiple, portable implementations. We put out a call for participation that announced the project. We got a lot of respondents. We had the 8080, 6800, PDP-11, PACE, 1802, TI 9900, with two people covering each--like Noah and the ark, it was two by two. The people at the State University at Utrecht in the Netherlands swapped with us the entire source code for their system. The first running Forth system thirteen of the team members ever saw was the one they had developed.

The University at Utrecht had Forth that early on. It grew from Chuck Moore's original work at Kitt Peak. Astronomers from around the world would spend time at Kitt Peak. They would take a tape back with them around the world and, bingo, Forth was up in Scotland, in France, in Chile and CalTech. From 1969 to about 1973, Forth started its migration through the world of astronomy.

Forth then was really an operating system for what I call a crippled computer. Forth has been treated in a receptive way by users of computers with very limited resources in terms of memory, mass storage or input/output. In such cases, Forth has been graded with very high marks.

On the other hand, we in the Forth community face a very real problem, in that as the manufacturers have provided increased quality of software, the need and demand for Forth appears to diminish. Forth was providing some irreplaceable attributes five years ago. Now it appears that a number of those attributes no longer are as attractive as they were. There is more memory space available, I/O is faster, more disk space is available, file structures are less limiting.

Forth has the proper elements, but I fear people are not making anywhere near the use of them that they should be. But the last five years have shown me that the deficiencies aren't in the language itself.

It's in the utility aspects of the language. That is, the absence of a file system, the limited choices that you have to manipulate amounts of information larger than just a number on the stack or a character string. Users now cannot do much more with Forth than they did four or five years ago.

The Forth Standards Team's effort, as it is presently going on, is not into very high-level constructs such as trying to have a standard editor or trying to have standard telecommunications protocols.

There is a tremendous range of opportunity for vendors to build in this area. Right now the vendors are just trying to do a good job on Forth and to document it; they are pulling back too soon. They are not meeting the challenge, not addressing unfulfilled needs. I do not know where there is a commercially available spreadsheet in Forth.

I see us at a major turning point in the interest group's development. Until now, of necessity and correctly, it has been fairly focused in Northern California because we had enough people here to reach critical mass to get the work done. Now we are at a point where we can start to distribute the participation totally through the membership. I hope that in the next few years we will have our national convention regionally.

Why do I expend such volunteer effort on behalf of FIG? Some people are surprised at my investment of seven years? The obvious answer, at least to me, is that I enjoy communicating, both in written and spoken form. In order to talk about Forth, there must be others, so a growing group is necessary for all of us to have a forum.

Why hasn't FIG outlived its usefulness? There is an easy answer to that. It is the only community of interest that has developed associated with Forth. One manufacturer has started and supported a user group, but the activity, from all indications I see, is very modest. We have a number of elements going into effect this year, such as membership cards, discounts, possibly expanded hotline services based on membership.

Is FIG likely to endorse Laxen and Perry's F83 implementation as a language model? I certainly hope we will. The standard really isn't a standard until it is accepted broadly and used broadly.

What is my relationship with other organizations? I purchased stock in Forth Inc. in 1979 and served as Director from 1980 through late 1982, and then as Chairman until October of 1983. My only current involvement is as an investor. I joined the Forth Vendors Group at its inception, about a year ago. My product is the Ultra Compiler, a target compiler, which is made available to industrial customers.

Does a marketplace exist for Forth and Forth products? The market is developed for Forth programmers, but not for Forth products. Right now, there is a sufficient number of industrial uses for Forth that professionally skilled Forth programmers don't seem to have any trouble getting a job. I know of two industrial companies which were considering dropping Forth as their programming language in the past year because of their difficulty in recruiting people.

The skills for Forth programmers are merchandisable. On the other hand, look at the sales of companies such as Digital Research and Microsoft. They are providing languages and operating systems, essentially productivity tools for other programmers. Well, that's what Forth does. Now, if we take the sales of the top ten companies in the Forth community, filling in your own names as to which they may be, we would add up their total gross sales at maybe something like three million dollars max, and possibly something closer to two million dollars. Digital Research and Microsoft are 6000 percent larger than us.

Now if we are saying that Forth is so dynamite, so productive, so innovative, so useful, solves so many problems, why do we have this hundred-to-one gap between Forth and the other environments? The growth curve that the microcomputer industry is currently enjoying, something like thirty-five or fifty percent per year, is not going on within the Forth vendor community.

I see vendors such as Unisoft and Relational Technology in Berkeley that are currently doing four to five million dollars a year, and are heading toward doing fifteen to twenty million dollars a year in what is very high margin work. I see no reason whatsoever why this cannot be done with a Forth starting point.

Up till now, Forth and Chuck Moore have built an avocation. How are we going to make an industry out of it? Forth right now is like a well-worn comfortable slipper. It is convenient, easy, fun, all that. A new order must form to respond to needs.

I flip open a magazine such as Dr. Dobbs's Journal and I see in there six implementations of C, one of which sells for \$350, and the rest for \$500 or \$600. I see about six implementations of Forth, with most about \$85 or \$100. Well, pricing often can be a clue to perceived worth. What this tells us is that the purchaser perceives that in a Forth system he has only one-fifth the value he would have in a C system.

What do I personally want from FIG? It has gone on too long with me calling the shots. We have got to find a way to ease me out. Seeing John Hall come along is a breath of fresh air. He picked up the challenge.

Are there any limits to growth? There must be, the day will not come that there are a million members of FIG. I use the book Starting Forth to test our potential universe. I understand there are fifty or sixty thousand copies in print, and everybody who owns a copy ought to be a member of FIG also.

What kind of people are attracted to Forth, and which do not do well with it? I see two types of people that find Forth valuable. The first is the innovative or ingenious person, a sort of puzzle solver who takes as much relish in the method of solution as he does in the solution itself. The other type person is one who appreciates the flexibility of Forth. In some cases they are a little more rebellious or non-conformist, they don't want to solve the problem the way the other person does it.

"I can do it better" is typical of the individualist aspect in the interest group. A classic quote goes like this: Hardware designers and engineers are used to standing on each other's shoulders, building from components supplied by other people. Programmers tend to stand on each other's toes.

The people in the Forth Interest Group have changed. In the 1979-1980 era, we were very heavily in an evangelical role. Now we are less strident. We are now providing information to a more receptive audience who is saying, "Say, I've heard about Forth. Can you help me to understand more or to get some use from it?" That is a remarkable improvement in the short space of three years.



we never had a problem finding a seat in 82!

Business Programs

by Richard Rospond - Program Chairman

This column is for current or potential ATR 8000 users, or those who might use CPM or MS DOS on the job, but an ATARI at home.

For my first review, let's start with dBASE II, the best selling data base manager from Ashton-Tate. On CPM I am using version 2.3d; at work version 2.4 (MS-DOS).

On my ATARI, my first DB system was DMS. My main complaint was that for every search, the system went through every record. To make one update on a 300 name mailing list I had to wait for DMS to sequentially search all 300 records. What a waste of time.

Then I went to FileManager+ which provides Indexed sequential access. With an index, the computer does a much faster search of the index key(s) only. Only the index is sorted, not the entire record, but to the user the records appear to be sorted. My complaints with FM+ were the slowness of the menus, and the lack of flexibility in the report formats.

I tried Data Perfect, the best of the ATARI db's. This is the closest thing to dBASE II, but the documentation is very poor, and it is limited by the constraints of a 48K machine. However, if you want the best dBASE written for the ATARI, this is it.

Now to the main topic. What's so good about dBASE that would make over 700,000 people buy it at a list price of \$700?.

First, it is not menu driven. It is an interactive, relational data base system. From DOS this is how you would load and execute a program.

1. Type dBASE <CR>
2. Enter today's date <cr>
3. Type "USE" <filename> <CR>
4. Then you can EDIT, Append, run a report etc.

That's it- no menus, no nothin'. And dBASE automatically updates all files you work on, and dates all reports with the current date (nice).

The major features of dBASE are:

1. A REPORT FORM which allows you to define a report format and save it to a file. To call that report you type "REPORT FORM <name>," and list and parameters (by state, < 10, etc). Of course you can modify the form without starting from scratch.

2. Data entry and editing are done from an inverse video "masked" screen. You can see exactly how long each field is as you are working.

3. You can modify the structure of an existing file. You can add fields, change from NUM to ALPHA, change field length, etc. This is not possible in DMS or FM+.

4. You can sort, index or search on any and all fields. You can re-arrange the fields in any order that you would like.

5. You can move easily around the file with commands such as GO TOP, GO Bottom, NEXT 5.

6. It has a full range of functions and relation operators, including CHR which can be used to set printer commands.

7. It has about 100 commands or Macro instructions that ease programming. For example you can tell dBASE to Count, Sum, Display <for conditions>, List, Copy <to or from>, Clear, Delete, Sort, and many others.

8. Last but not least, it has its own programming language; well actually a batch file mode that allows you to perform commands sequentially, resulting in a program. Here is a program to run a mailing list from an existing dBASE file:

```
SET TALK OFF (suppresses screen)
SET PRINT ON (sends output to printer)
USE <filename>
DO While .NOT. EOF
  If zip=07928
    ? name
    ? address
    ? city, state, zip
    ? (blank lines)
  END IF
  SKIP (get next record)
SET PRINT OFF
END
```

Using this type of batch command process, you can format a report to any specifications, including changing print fonts in the middle of a report.

To perform the above program you type in DO <program name>. To change the program you type MODIFY COMMAND <program name>, and dBASE provides an editor for you to make the changes.

Although there are several new DB programs in MS DOS (like "R" base) that are more powerful, dBASE continues to be the most popular. To the best of my knowledge, it is the best written for CPM.

My favorite features are:

.The masked screen for data entry, and the ability for you to go directly to any record for editing or deletion. Even my wife doesn't mind working with this.

.The ease of writing a report with the REPORT FORM command, which includes totals and subtotals on numeric fields, page break on key fields, dating, pagination, headings and titles. All this without programming.

.The ability to write a program for input or output of information. This provides total flexibility over your application.

.Search and sort on any field- fast (compared to ATARI DB's, not UNIX).

.Getting information from commands such as count, sum or display for.

There is nothing I dislike about dBASE, although I should point out that it only handles 2 dimensional tables. But it is an interactive, query language, relational data base.

That's it for this month- next month WORD STAR, the best selling word processor from Micropro.

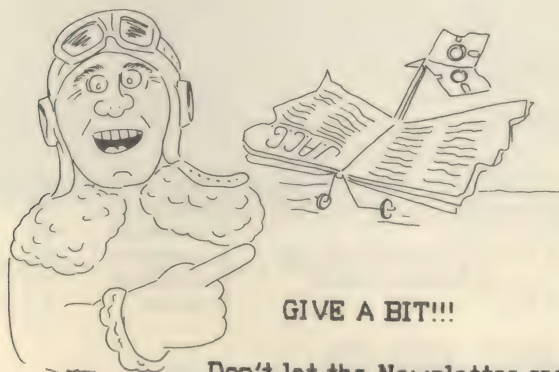
JACG MEMBERSHIP

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are \$20.00 per year and entitle the member to 1) Receive the monthly newsletter; 2) Purchase programs from the group's extensive tape and disk librarys at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; and 10) Have a lot of fun.

If all of this sounds good then send a check or money order, payable to JACG, to:

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Remember, receiving the JACG Newsletter is just one of the many benefits of being a member of JACG.



GIVE A BIT!!!

Don't let the Newsletter crash!
Contribute an article this month.

REAL PROGRAMMERS DON'T EAT QUICHE

Real Programmers don't eat quiche. They like Twinkies, Coke, and palate-scorching Szechwan food.

Real Programmers don't write application programs. They program right down to base metal. Application programming is for dullards who can't do systems programming.

Real Programmers don't write specs. Users should be grateful for whatever they get; they are lucky to get programs at all.

Real Programmers don't comment their code. If it was hard to write, it should be even harder to understand and modify.

Real Programmers don't document. Documentation is for simpletons who can't read listings or the object code from the dump.

Real Programmers don't draw flowcharts. Flowcharts are, after all, the illiterate's form of documentation. Cavemen drew flowcharts; look how much good it did them.

Real Programmers don't read manuals. Reliance on a reference is the hallmark of the novice and the coward.

Real Programmers don't write in RPG. RPG is for the gum-chewing dimwits who maintain ancient payroll programs.

Real Programmers don't write in COBOL. COBOL is for Common Business Oriented Laymen who can run neither a business or a real program.

Real Programmers don't write in FORTRAN. FORTRAN is for wimp engineers who wear white socks. They get excited over finite state analysis and nuclear reactor simulation.

Real Programmers don't write in PL/I. PL/I is for insecure anal retentives who can't choose between COBOL and FORTRAN.

Real Programmers don't write in BASIC. Actually, no programmers write in BASIC after reaching puberty.

Real Programmers don't write in APL unless the whole program can be written on one line.

Real Programmers don't write in LISP. Only sissy programs contain more parentheses than actual code.

Real Programmers don't write in PASCAL, ADA, BLISS or any of those other sissy computer science languages. Strong typing is a crutch for people with weak memories.

Real Programmers' programs never work right the first time. But if you throw them on the machine they can be patched into working order in "only a few" 30-hour debugging sessions.

Real Programmers don't work 9 to 5. If any Real Programmers are around at 9 a.m., it is because they were up all night long.

Real Programmers don't play tennis, or any other sport which requires a change of clothes. Mountain climbing is OK, and Real Programmers wear climbing boots to work in case a mountain should suddenly spring up in the middle of the machine room.

Real Programmers disdain structured programming. Structured programming is for compulsive neurotics who were prematurely toilet trained. They wear neckties and carefully line up sharp pencils on an otherwise clear desk.

Real Programmers don't like the Team Programming concept. Unless, of course, they are the Chief Programmer.

Real Programmers never "write" memos on paper. They "send" memos via MAIL.

Real Programmers have no use for managers. Managers are a necessary evil. They exist only to deal with personnel bozos, bean counters, senior planners, and other mental midgets.

Real Programmers scorn floating point arithmetic. The decimal point was invented for pansy bedwetters who are unable to think big.

Real Programmers don't believe in schedules. Planners make up schedules. Managers firm up schedules. Frightened coders strive to meet schedules. Real Programmers ignore schedules.

Real Programmers don't bring brown-bag lunches. If the vending machine sells it, they eat it. If the vending machine doesn't sell it, they don't eat it. Vending machines don't sell quiche.

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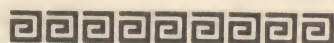
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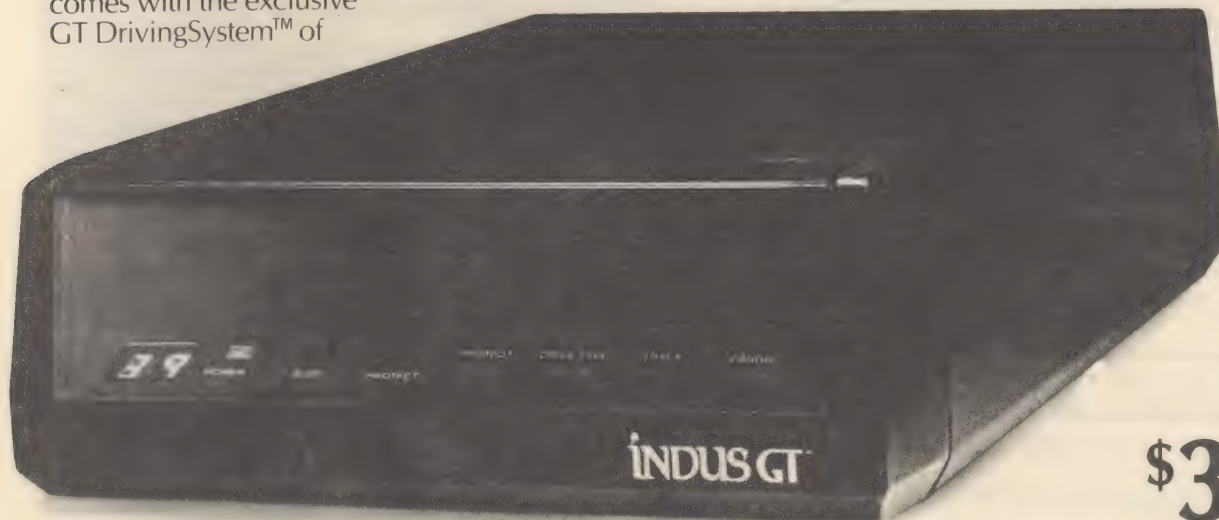
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PICTURE SHOW

by Bill Hough - JACG

The accompanying program, PICSHOW, was inspired by an ANTIC reader who manages a small public-interest cable TV station in Wisconsin. Rather than spending \$10,000 for a TV graphics generator, he is using an Atari 800 and a BASIC program to generate cycling textual announcements, which are input directly to the TV station transmitting equipment. He had noticed that my program, PICUTE, published in the August issue of ANTIC, allowed text to be superimposed on a high resolution Graphics 7+ screen. (Graphics 7+ is a popular name for Antic mode 14, which is the mode used in DataSoft's MICROPAINTER.) He wondered if it might be possible to cycle high resolution graphics with superimposed announcements. Sure, I said, and PICSHOW is the result. It continuously displays as many Graphics 7+ pictures from your library as you can put on a disk.

When stored on a standard Atari single density diskette, 62 sectors are required for a Graphics 7+ picture in the MICROPAINTER format. Eleven separate pictures can be stored, with 25 sectors left over (assuming no DOS). That's room enough for this program. With a double-density disk drive, you can probably store 22 to 24 pictures (I don't know exactly, as I don't have one). PICSHOW doesn't care how many pictures you have on a disk (up to 24). What it does care about is that all picture files have names without extenders. Conversely, and unless you want to see BASIC programs and other files in living color, these other files should have names that include extenders (eg: PICSHOW.BAS). PICSHOW also cares that the picture files have the four color bytes appended to the pixel data, which is standard with MICROPAINTER files.

When you RUN the program, it first tells you that the minimum exposure for each picture is eight to nine seconds. This is the empirically determined time for an Atari 810 to load a 62 sector file from a fast formatted diskette. If you have an older 810 or a newer, faster drive, you can change line 250 accordingly.

PICSHOW then asks you to insert the picture disk, and instructs you to press START to display the pictures with the minimum exposure or SELECT if you want more than the minimum. If you press SELECT, you may specify different additional exposures, in seconds, for each picture by answering "Y" (for Yes) to the question that appears. Or you can specify the same additional exposure for all pictures by answering with any other key. (The calculation for additional exposures is approximate, so don't set your watch by it.) When PICSHOW has all the information it needs, it's time to sit back and enjoy the show.

When you have seen the disk full of pictures a few times, you can stop the program by repetitively pressing the BREAK key until the program stops. Then RUN the program again with another disk full of pictures. The reason for repetitively pressing the BREAK key is that PICSHOW spends most of its time in central IO, and will ignore you until it is doing something the BREAK key will interrupt.

```

19 REM : *****
29 REM : * PICSHOW by W. W. Hough *
39 REM : * for JACG Newsletter 4/84 *
49 REM : *****
100
Z=0:C=1:C2=C+C:C3=C2+C:C4=C3+C:C5=C4+C:C6=C5+C:C7=C6+C:C9=C7+
C2:C10=C9+C
110 BLOCK=256:BACK=712:SIZE=7680:IOCB=848:GOTO 210
119 REM : Typo Announcement
120 POKE BACK,68:SOUND 2,136,12,14:FOR B=C TO 60:NEXT B:SOUND
2,2,2,2:POKE BACK,2:RETURN
129 REM : Lines 130-200 are Main Loop
130 FOR K=C TO KK:FILE$=DDIR$(K*C10-C9,K*C10)
140 CLOSE #C:OPEN #C,C4,2,FILE$
150 POKE IOCB+C2,C7:POKE IOCB+C5,INT(BUF/BLOCK):POKE
IOCB+C4,BUF-BLOCK*PEEK(IOCB+C5)
160 POKE IOCB+B,C4:POKE IOCB+C9,C3*C10
170 DUMMY=USR(ADR(LDFILES)):CLOSE #C:POKE 77,2
180 FOR I=C TO C3:POKE 707+I,PEEK(COLREG+I):NEXT I:POKE
BACK,PEEK(COLREG)

```

```

190 DUMMY=USR(ADR(MOVE1),BUF+SIZE,SM+SIZE,SIZE)
200 FOR I=Z TO DELAY(K):NEXT I:NEXT K:GOTO 130
209 REM : Initialization
210 DIM TXT$(C10),FILES$(C10),DELAY(24),DDIR$(250)
220 GRAPHICS 2:?:?:? " PICSHOW":?:? " Continuous
Show of GR 7+ Pictures"
230 ??:? " by William W. Hough April, 1984"
240 ??:?:? "Picture Files on disk must have names without
extenders. All other names"
250 ? "must include extenders (eg: DOS.SYS).":?:? "A minimum
exposure of 8-9 seconds"
260 ? "occurs while loading each picture.":?:? " Insert
Picture Disk."
269 REM : Load Picture Routine
270 DIM LDFILES$(C7):FOR I=C TO C7:READ
B:LDFILES$(I,1)=CHR$(B):NEXT I
280 DATA 104,162,16,32,86,228,96
289 REM : Move Picture Routine
290 DIM MOVE$(56):FOR I=C TO 56:READ
B:MOVE$(I,1)=CHR$(B):NEXT I
300 DATA
104,104,133,204,104,133,203,104,133,206,104,133,205,104,133,2
08,104,133,207,164,207,136,192,255,240
310 DATA
7,177,203,145,205,24,144,244,166,208,240,18,160,255,198,204,1
98,206,177,203,145,205,136,192,255
320 DATA 208,247,202,208,238,96
330 ??:? " For minimum exposure, press START"
340 ??:? " To increase exposure, press SELECT"
350 IF PEEK(53279)=C6 THEN DEL=Z:GOTO 380
360 IF PEEK(53279)=C5 THEN DEL=C:GOTO 380
370 GOTO 350
379 REM : Put Pictures in DDIR$ String
380 CLOSE #C2:OPEN #C2,C6,2,"D:":TRAP 410:K=C
390 FILE$="D:":INPUT #C2,TXT$:FILES$(C3)=TXT$(C3)
400 DDIR$(K,K+C9)=FILE$:K=K+C10:GOTO 390
410 CLOSE #C2:KK=INT(K/C10)-C
420 IF DEL=Z THEN 520
430 ? CHR$(125):?:? "Do you want different additional":?
"exposures for each picture ? (Y or N)"
440 CLOSE #C3:OPEN #C3,C4,2,"K:":GET #C3,ANS:CLOSE #C3
450 IF ANS<89 AND ANS<121 THEN ??:? "Input additional
exposure (seconds)":TRAP 470:INPUT DEL:GOTO 520
460 GOTO 480
470 GOSUB 120:GOTO 440
480 TRAP 510:?:? "Input additional exposure (seconds) for
each picture :":?
490 FOR I=C TO KK
500 FILE$=DDIR$(I*C10-C7,I*C10):? FILE$: " "":INPUT
DEL:DELAY(I)=DEL*306:NEXT I:GOTO 530
510 GOSUB 120:TRAP 510:GOTO 530
520 FOR I=C TO KK:DELAY(I)=DEL*306:NEXT I
529 REM : Modify Display List
530 GRAPHICS 24:DL=PEEK(560)+BLOCK*PEEK(561)
540
SM=PEEK(DL+C4)+BLOCK*PEEK(DL+C5):COLREG=SM-300:BUF=COLREG-SIZ
E
550 POKE DL+C3,78:FOR I=DL+C6 TO DL+198
560 IF PEEK(I)=15 THEN POKE I,14
570 IF PEEK(I)=79 THEN POKE I,78
580 NEXT I:TRAP 40000:POKE 87,C7:GOTO 130

```



NEXT MONTH BILL HOUGH TELLS YOU HOW
TO CONVERT BINARY LOAD FILES
TO BASIC STRINGS



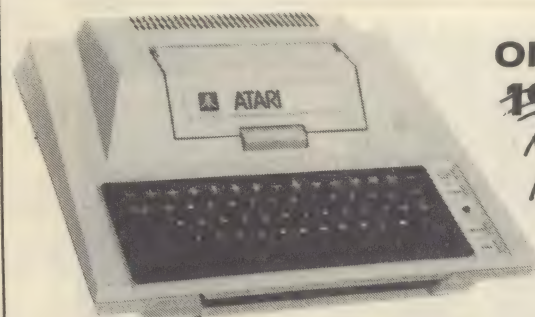
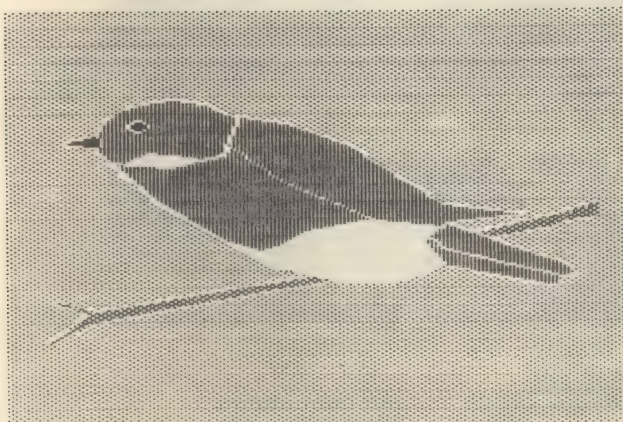
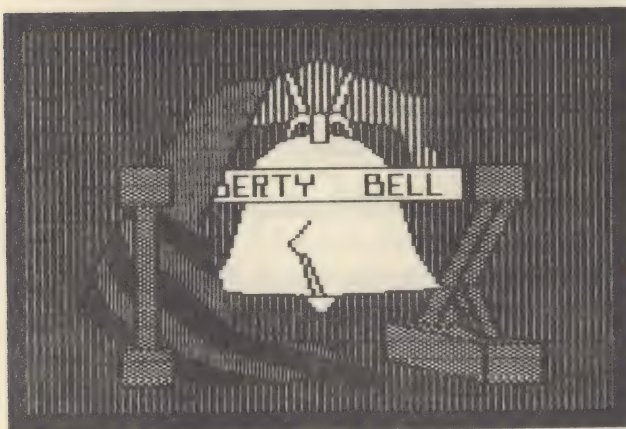
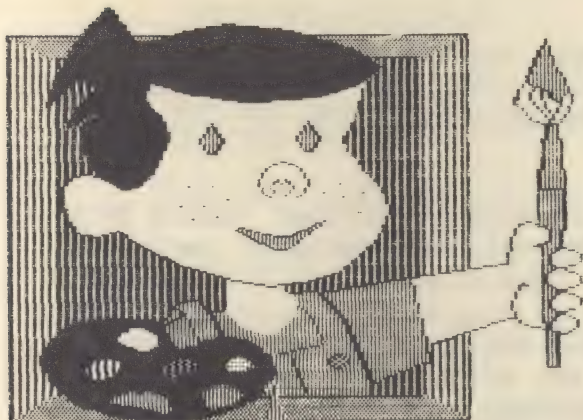
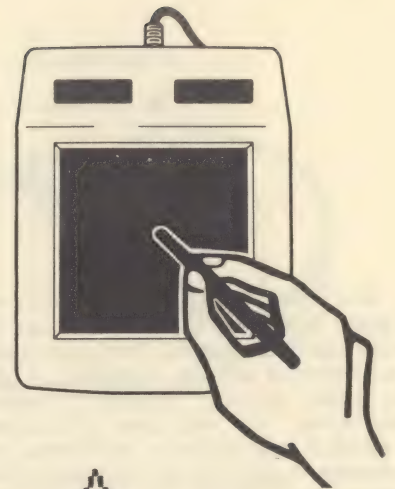
GRAPHICS GALLERY

A display of Art Work by JACG Members

Share Your Micropainter, Koalapad, Tech Sketch
Or Other Pictures With All Of Us

TECH SKETCH

This month's pictures drawn by
Kathy Hough, Age 13



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16⁹⁵

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A Kid's Eye View

By P.E. Semel

PITSTOP Races Along

Arcade racing has always had a place in my heart. When Baja Buggies from Gamestar came out, I was discouraged because it really was not that good. Then Atari released Pole Position and I was overcome with joy. I am now in a state of excitement over the latest in legal speeding, Pitstop by Epyx/Automated Simulations. Not only does it challenge Pole Position in graphics, it adds one thing that it does not. While racing along in Pitstop, you find yourself low on fuel. What's to do? Why not refuel? O.K. Just pull into the pitstop. This is where the game turns fun. You have to fuel the car and replace any bad wheels as fast as you can. If you leave the gas line on the car too long, your fuel is sucked out and you have to fuel up from the beginning. When all the wheels are fine and the fuel tank is full, it is time to race. Racing is not too difficult as is that when you collide with the sides or another car, your wheels get worse. When your wheels turn pinkish-orange, you know that one more bump and your car will go to that great Atari race garage in the sky. The game offers many options including up to four drivers, skill level, and which circuit to race. A circuit consists of a series of races, the easiest offers you a choice of 6 different courses and the hardest makes you go through them all before you are done. As you saw, if you were at that particular meeting, the graphics are very well done. I still like Pole Position better but Pitstop does not go unraced. Pitstop is available for \$34.95 at many computer stores.

JACG

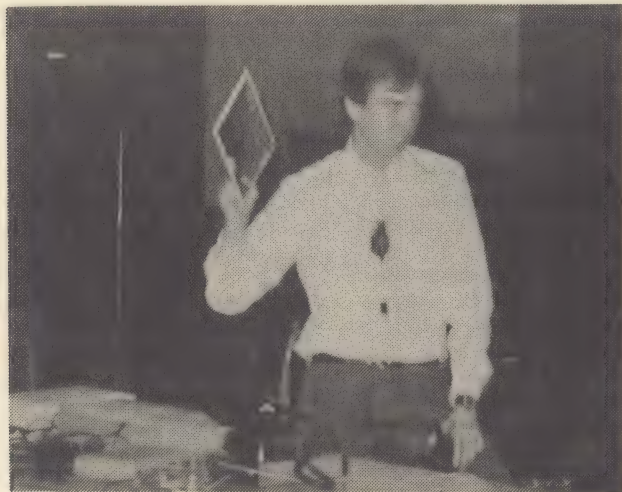


Photo by Tom Murphy - JACG

Programmer/designer Dan Euntun of Ozark Softscape displays his company's new software package "Seven Cities Of Gold", during the April 14th meeting. JACG members were fascinated by Dan's presentation of this program and his discussion of the many facets which influence software design. We were very impressed by this gentleman's style and expertise and recommend you take a good look at "Seven Cities" and Ozark's other offering, "X.U.L.E."

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TRADING POST

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Trading Post is a service for JACG members who wish to sell or swap items of any type. There is no charge for this service and material must reach the Editor by the 20th of the month to be considered for inclusion in the following month's Trading Post. No commercial services or items will be accepted.

>>>>>><<<<<<

FOR SALE: Atari 850 Interface Module - Fully operational. Only \$125. Contact David Siconolfi (201) 582-7493 (days).

FOR SALE: Centronics 737-3 Printer. (Identical to the Atari 825, exact same control codes) Uses pin feed, single sheets, or rolled paper (1 roll provided). Forward AND reverse paper feed in full and half-line increments. Cable included for connection to an Atari 850. Only \$175. Contact David Siconolfi (201) 582-7493 (days).

FOR SALE: Atari 810 Diskette. Excellent Condition. Only \$250. Contact **SOLD** Siconolfi (201) 582-7493 (days).

Writing For The JACG Newsletter

Articles should be submitted to the Editor by the 20th of the month for inclusion in the next issue. Submissions preferred on disk, using LJK Letter Perfect or Atari Writer. Font style should be Elite or Proportional with right hand justification. If hard copy is submitted the final printed width should be 4-1/4 inches from left margin to right margin. All formats will be considered including hand written documents if first arranged with the editor.

We want to encourage everyone to voice his/her thoughts, knowledge, and opinions. Writing will be modified at the discretion of the Editor. No piece will be knowingly altered out of original intent.

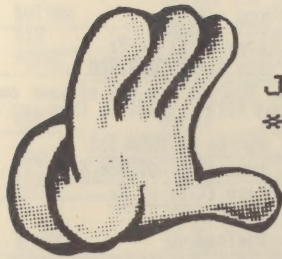
GIVE A BIT!!!



Two Hours A Year Isn't That Much

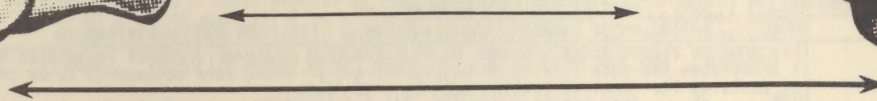


We need your ideas and articles to keep our newsletter the best.



JACG DISK LIBRARY

How To Order



PROGRAM LIBRARY. The legendary JACG library contains programs to entertain, confound, amuse, delight, and assist you. These have been selected from member contributions and by exchange and contribution from other Atari clubs throughout the world. No program is warranted or guaranteed in any way by JACG or any other party, and JACG accepts no responsibility other than to replace at no charge any disk or tape found to be physically defective.

The library is public domain material. It is JACG library policy to not knowingly include in the library any commercial or copyrighted software, except by permission of the owner.

The library is organized into volumes for duplication purposes. While the software itself is considered free to members, and members are free to exchange or duplicate the software, we do charge for disks and tapes. These charges cover costs of media, wear and tear on the library tape and disk drives, and postage.

OBTAINING VOLUMES. The disk library is available at all JACG monthly meetings. Disks may be obtained in the lobby before each meeting. There is a charge of \$5.00 per volume (one disk of programs). We provide the disks.

TAPE VOLUMES. Some but not all of the library programs can be transferred to and will work on cassette based Atari systems. We have two tape librarians who attempt to provide volumes on that media. These volumes (one tape of programs) mirror the disk volumes, except omitting any programs that require a disk to operate. The charge is \$5.00 per tape volume. Owing to the difficulty of maintaining a full inventory on tape, you may have to take potluck, or ask for a specific volume to be custom duplicated for you, to be picked up at the next meeting.

BUT I LIVE IN ALASKA! Yes, we know. You can order disk volumes by mail. These are \$6.00 per volume. Send a check for the proper amount (not cash) made out to JERSEY ATARI COMPUTER GROUP and specify the volumes desired. Send to:

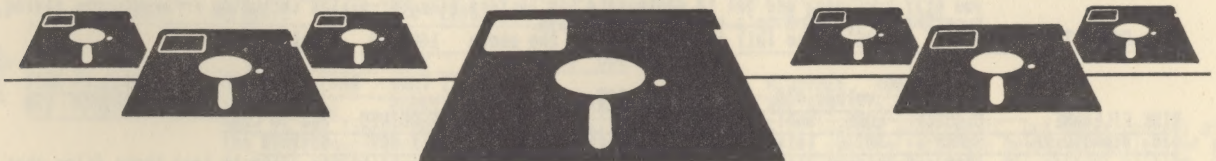
J.A.C.G.
attn D.A. URSEN
37 Clover Lane
Randolph N.J 07869

Do NOT send S.A.S.E or blank disks when with mail orders. The \$6.00 fee takes care of all that.

We DO NOT accept mail order requests for tapes at present. (The solution is to order the disk volume and then visit a friend who has a disk and copy over the programs to tape).

CONTRIBUTIONS to the library are very welcome. Don't be shy - if YOU think what you invented is neat, other members probably will too! Send in your creation on a disk. We'll return the disk with a couple of free programs and maybe some helpful advice on how to make it even more fantastic.

DOCUMENTATION AND ADVICE is the other service your library provides. If you are stuck on a programming or operational problem, or need info about current hardware or software, feel free to give me a call evenings or weekends at (201) 895-2522. We have experience with or information on every programming technique, program, or peripheral that works on the Atari. JACG can't circulate documentation but we can answer questions or get you to someone who can.



		DISK volume 036		UTILITIES 004	
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD
036 README.1ST	HUMAN	text	info about setting up the AMIS bb	48K	copy to E: or P:
MINIAMS.BBS	MODEM	BASIC	your own bulletin board system	48K BAS	run by AUTORUN.BBS
this is a mini version of the Atari dial-up bulletin board system. Now you can set up your own system that other people can call into to chat with you or upload/download files. REQUIRES that you have a HAYES or other modem with AUTOANSWER capability.					
STARTUP.BBS	n/a	BASIC	startup program to bring up bboard	48K BAS	run by AUTORUN.BBS
AUTORUN.BBS	n/a	ML	starts bboard at powerup of disk	48K BAS	rename as AUTORUN.SYS
MINIAMS.DOC	n/a	text	operator instructions for bboard	48K	copy to E: or P:
FUNC,HELP,NEWU	n/a	text	used by MINIAMS program		
DIETY	MODEM	BASIC	sends machine language files	48K BAS	basload
this program allows modem transfer of ml files that ordinarily cannot be handled by standard modem programs. it translates the data file to an equivalent set of BASIC data statements to be sent as a listing, then retranslates the received listing back to a ml file.					
RABBIT15	DISK	ml	disk sector copier (the Black Rabbit)	48K	dosload
an alternative to SCOPY for duplicating both ordinary and machine language boot disks in as few passes as possible. it got its name because it is fast like a rabbit and shuts off the display while it works. does not copy protected disks.					
MEMPRINT	DEBUG	BASIC	dumps memory contents in hex to P:	16K BAS	basload
BOTCPYDT	TAPE	BASIC	makes a boot tape from a disk file	48K BAS	basload
with this, any machine language game that runs on disk via the dos L command can be converted into a self-booting cassette to work on tape-based systems.					
TAPEDUPE	TAPE	BASIC	copies a tape data file to disk	48K BAS	basload
BOOTCOPY	TAPE	BASIC	makes a disk file from a boot tape	48K BAS	basload
with this, many self-booting cassette programs can be turned into a binary disk file for more convenient use.					
JTERM32	MODEM	BASIC	yet another modem program	48K BAS	basload
offers upload/download and terminal support.					
AUTO	MODEM	ML	creates 850 interface AUTORUN.SYS	16K BAS	basload
if you lost or didn't get the driver AUTORUN.SYS that is needed to use an 850 interface module with a modem, this program will recreate it for you.					
PERCOM	DISK	text	tech notes about the PERCOM roms	n/a	copy to E: or P:
DSK2CAS2	TAPE	BASIC	makes a boot tape from a disk file	48K BAS	basload
if BOTCPYDT didn't work, here is another program to try					
HEXPOKE	DEBUG	BASIC	a mini monitor	16K BAS	basload
to examine or patch data or poke values in memory, use this. range of memory is displayed in HEX onscreen. you can use the cursor keys (without control key) to move around and change values dynamically					
RNDNUMBR	PGMMG	BASIC	picks a random number in given range	16K BAS	basload
SCRNDUMP	PRINT	BASIC	etch-a-sketch with printer dump	16K BAS	basload
this program offers joystick driven drawing in graphics mode 5. finished screens can be dumped to your printer					
VARIABLE.LST	DEBUG	BASIC	lists variable names for any program	16K BAS	basload
DSKLABEL	DISK	BASIC	prints labels to paste on disks	16K BAS	basload
printed label shows all filenames on a one or two sided disk.					
SUPLABL	DISK	BASIC	prints tiny labels to paste on disks	16K BAS	basload
printed label shows all filenames in tiny condensed print so it will fit on the disk label area instead of having to be placed on the jacket. requires an EPSON grafrax compatible printer.					
MEMLOW.TOP	pgmmg	ML	resets memory boundaries (I think)	16K	dosload
DISKTOOL	DEBUG	BASIC	disk sector editor	16K BAS	basload
this utility can help an experienced programmer repair damaged disk files. allows examining sector data, file sector trace, and file link changes. supports printer.					
DISKTOOL.PT2	DEBUG	BASIC	disk sector editor part 2	16K BAS	basload

		DISK volume 037		GAMES 016			
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD		
016 SCRAMBLE	graphic	BASIC	the old shell game against computer	16K BAS	basload	a very nice animated rendition of the 3-card monte game played on New York street corners. If you have SAM, it would make a great project to add actual spoken comments as this game plays.	
CANNON	graphic	BASIC	fire cannon over mountain	16K BAS	basload		
FLIPIY	graphic	BASIC	play OTHELLO against the Atari	16K BAS	basload	a good rendition with nice graphics	
HANGMAN	graphic	BASIC	the spelling game of HANGMAN	16K BAS	basload		
LANDER	simul	BASIC	try to land on the moon	16K BAS	basload	this is the one with tough terrain	
LANDING	simul	BASIC	land a plane on the runway	32K BAS	basload		
MOTIE	graphic	BASIC	a strategy game - outthink the motie	16K BAS	basload	another well-done game by the adept STAN DCKERS, inspired by Larry Niven's sci-fi novel.	
SUPGAME	simul	BASIC	help Superman clean up the crooks	16K BAS	basload		
SUPINST	n/a	BASIC	the full instructions for the above	16K BAS	basload	you play superman, and get to manipulate his variety of super-skills including x-ray vision, flying, superbreath to round up a cityful of bad guys.	

		DISK volume 038		UTILITIES 005			
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD		
038 BINAUTO.OBJ	HUMAN	BASIC	lets you load binary files from basic	16K BAS	dosload	this convenience utility once loaded, lets your BASIC program or menu program load those files that before, you had to exit BASIC and use the dos L command for. it is fully documented. you can even work this into the JACS menu program so it will run ALL games.	
BINAUTO.INF	n/a	text	instructions for above	n/a	n/a		
BINAUTO.LST	n/a	text	assembly listing for above	n/a	n/a	n/a	
BINAUTO.SRC	n/a	asm	assembler source for above	n/a	n/a	use assembler	
this is provided so you can reassemble BINAUTO to reside anywhere in memory or make other alterations							

AUTONUM	HUMAN	BASIC	automatic line prompting as you type	16K BAS	basload
ADSRGEN	pgmgg	BASIC	experiment with sound effects	16K BAS	basload
			allows you to see effect of various sound register parameters (attack and decay) in constructing a sound		
BUTTON	HUMAN	BASIC	Jerry White's menu program	16K BAS	basload
DIR	HUMAN	BASIC	get disk directory from within BASIC	16K BAS	basload
PURGE	HUMAN	BASIC	delete disk files from within BASIC	16K BAS	basload
			this handy utility will step through the disk directory offering you the chance to delete each file in turn, good for making room on disk without having to load DOS to do it.		
EDIR	HUMAN	BASIC	get disk directory from within BASIC	16K BAS	basenter
			this can be used to include (ENTER "D:EDIR") the DIR function into one of your programs		
DEBUG	debug	BASIC	debugging aid to merge into a program	16K BAS	basEnter
XREF	HUMAN	BASIC	builds variable cross-reference	16K BAS	basload
			this analyzes a basic program to tell you which lines are referencing any given variable. the program to be analyzed must first be LISTed to disk (as opposed to the normal SAVE)		
SCURRY	pgmgg	BASIC	a sprightly scurrying sound effect	16K BAS	basload
COLOR.WHL	pgmgg	BASIC	displays color wheel for your viewing	16K BAS	basload

DISK volume 039 GRAPHIC/SOUND 005					
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD
039 CCDRAW	playfld	BASIC	a drawing utility	16K BAS	basload
EZTRANS	BASIC		a translation utility	16K BAS	basload
PLAYRUTL	player/m	BASIC	player missile design aid	16K BAS	basload
			makes it easy to design and save a player/missile object shape for use in your own BASIC programs.		
INSTRUCT.TXT	player/m	text	instructions for PLAYRUTL	n/a	n/a copy to E: or P:
ANIMATIN	playfld	BASIC	DEND - a super 3-D moving surface	32K BAS	basload
			one of the best show-off demos I've seen for the Atari. Kind of like watching a flying carpet in action. a surface is drawn in rapidly varying perspective (you specify how many lines make it up) so it appears to be flying around in space. Try running this under BASIC XL or better yet, compile it for even faster hypnotic motion.		
SLATE	playfld	BASIC	a title page with timed countdown	16K BAS	basload
XMASTREE.OBJ	playfld	al	DEND - a decorated tree in snowstorm	16K	dosload
			another best show-off demo. the tree blinks while music plays and snow falls from the sky. all these tricks are done via background interrupts.		
CHARLOAD	charactr	BASIC	character set (font) loader utility	16K BAS	basload
SUPERFNT	charactr	BASIC	build your own custom character font	16K BAS	basload
			use this utility along with CHARLOAD to easily add special lettering or animated shapes to your BASIC programming		
SOUNDRUT.LST	sound	BASIC	an enterable library of sound effects	16K BAS	basEnter
			contains basic code for bell, alarm, whistle, siren sounds		
SOUND	sound	BASIC	DEND - a runnable version of above	16K BAS	basload
CLIPPING	playfld	BASIC	allows 'window' graphics	16K BAS	basload
			using this, you define a portion of the screen as a window. In line graphics, instead of wrapping around when a line is too long, it is neatly clipped at the window edge - automatically		
SCRL19.A01	playfld	al	DEND - scrolling screen	16K	dosload
LOGO1	player/m	BASIC	the Atari logo on a rainbow field	16K BAS	basload
TITLE	playfld	BASIC	animated title with gr. 7 demo	16K BAS	basload
LOCOMOTV	playfld	BASIC	DEND - an animated train (in blue)	16K BAS	basload
TRAIN	playfld	BASIC	DEND - same as LOCOMOTV, but in red	16K BAS	basload

DISK volume 040 GAMES 013					
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD
040 KNIGHT	adven	BASIC	find princess in puzzling castle	32K BAS	basload
			this is a graphic puzzle in a castle with many doors		
SPLANDER	simul	BASIC	try to soft-land on the moon	16K BAS	basload
DEFLECT	arcade	BASIC	deflect ball to knock out targets	16K BAS	basload
			use the \ and / keys as controls		
ONEONONE	arcade	BASIC	a two-player version of BREAKOUT	16K BAS	basload
CARRACE	arcade	BASIC	racing game using paddle controllers	16K BAS	basload
TRENCH	arcade	BASIC	attack the Death Star thru the trench	32K BAS	basload
			fast action, maneuver to avoid laser beams that zero in on you if you stay in one position too long. when you get close, indicators will show your drift to right or left of target. correct your aim. When prompt says time to shoot, press fire and pull back on stick to climb out of trench. time it right and you'll survive.		
SPDODGE	arcade	BASIC	space ship must avoid TRITON mines	16K BAS	basload
AIRPLANE	arcade	BASIC	fly an airplane using paddles	16K BAS	basload
CONVOY	simul	BASIC	the Murmansk run in WWII	48K BAS	basload
			first arrange your convoy formation, selecting which ships carry which cargo. then steer convoy along strategic route while Axis planes and subs look for you. If plane sites you, try to get it with AA, if sub, sonar will pick it up. try to merge your blip on to U-boat. If successful, you get a shot at it with an ashcan. Your score is based on how much of your convoy gets thru.		
CHECKERS	graphic	BASIC	TWO-PLAYER game of checkers	32K BAS	basload

DISK volume 042 MUSIC 004					
DISK FILENAME	CLASSIF	LANG	WHAT IT DOES	REQUIRES	HOW TO LOAD
042 PPDEMO	sound	al	POKEY PLAYER MUSIC SYSTEM DEMO	48K BAS	basload
			this is the famous POKEY PLAYER, a music/sound system which resides under BASIC, but takes control of the POKEY sound processor under interrupt, so that music and sound effects can be played while your program is doing something else. This allows arcade games to be accompanied by tunes, etc without halting or slowing any of the onscreen action. run PPDEMO to get an idea of the capabilities. This disk also includes full documentation and the needed utilities to build your own sound files. ... and... if you don't want to, there are 40 - count 'em - 40 already prepared tunes for pokey included on the disk.		
INFO	sound	BASIC	run this to see documentation	48K BAS	basload
EDITOR	sound	BASIC	run this to build your own files	48K BAS	basload
DPLAYER	sound	al	this is the player module	48K BAS	see documentation
.. and 40 song files included					

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FIRST CLASS MAIL

JACG NEWSLETTER - VOLUME 3, NUMBER 9

May 1984

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